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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,555	04/08/2004	Damien Convert	36100.00.0003	8353

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EXAMINER	
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ART UNIT	PAPER NUMBER
3663	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/820,555	CONVERT ET AL.	
	Examiner	**Art Unit**	
	Ronnie Mancho	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-31* is/are pending in the application.

4a) Of the above claim(s) *29-31* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8, 10-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group (I) pertaining to claims 1-28 in the reply filed on 5/11/07 is acknowledged. The traversal is on the ground(s) that claim 9 has been canceled and claim 8 amended to overcome the species election. Applicant's amendment has obviated the species restriction.

Therefore claims 1-8, 10-28 are pending for prosecution.

2. Claims 29-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/11/07.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The disclosed invention is inoperative and therefore lacks utility. That is in independent claims 1, 11, 18, 25-28, the applicant recites "software", but does not state that the software is executable. The applicant needs to recite that the software is executable to overcome the rejection.

Applicant further recites, "a database', but discloses no memory.

The rest of the claims are rejected for depending on a rejected base claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-8, 10-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Matheson et al (5794172).

Regarding claim 1, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose a method of simulating on a computer an actual track route, the method comprised of the steps of:

specifying to the computer, a track event along an actual track route (col. 27, lines 46-56; col. 31, lines 21-42);

reading a track event database (col. 31, lines 16-67) by the computer to obtain a software model of the track event by which the track event can be simulated on the computer; and

the computer presenting a simulation of the track event on a display device (col. 31, lines 66&67) using the software model of the track event.

Regarding claim 2, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 1 wherein the step of specifying a track event along an actual train route includes the step of specifying the location of the track event.

Regarding claim 3, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 2 further including the step of:

specifying to the computer, a terrain database from which to read terrain information (topology, col. 31, lines 21-42) for the terrain proximate to the track event;

reading terrain information for the track event from the terrain database (col. 31, lines 21-42);

reading a terrain model database to obtain a software model of the terrain (see topology, col. 31, lines 21-42) proximate to the track event by which the terrain can be simulated on the computer; and

said computer presenting a simulation of the terrain proximate to the track event (col. 31, lines 21-42; col. 33, lines 30-65).

Regarding claim 4, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 1 further including the step of:

storing the software model of the track event in a simulation file.

Regarding claim 5, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 1 further including the steps of:

reading a surface coverage database from which to obtain information on the surface coverage of terrain surrounding the track event (col. 31, lines 21-42; col. 33, lines 41-65);

reading a surface coverage simulation database to obtain a software model of the surface coverage surrounding the track event and by which the surface coverage surrounding the track event can be simulated on the computer(col. 31, lines 21-42; col. 33, lines 41-65); and

the computer generating a simulation of the surface coverage surrounding the track event (col. 31, lines 21-42; col. 33, lines 41-65).

Regarding claim 6, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 3 wherein the information input to said computer from the terrain database includes information from a U.S. Geological Survey database (applicant admits that is it prior art; also see col. 29, lines 30-42).

Regarding claim 7, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 2 wherein said actual location includes the latitude and longitude coordinates of track events (see GPS, col. 32, lines 6-14).

Regarding claim 8, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 3 wherein the proximate terrain information includes the elevation (topology, grade; col. 33, lines 42-55; col. 34, lines 39-42) of the location of the first track event, and climatic information (wind, weather; col. 31, line 60-65) for the location of the first track event

Regarding claim 10, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 1 wherein said first track event includes at least one of:

a section of straight track (col. 33, lines 56-65);

a track switch (col. 33, lines 55-65);

a train signal or sign (col. 30, lines 50-55);

a track crossing (col. 33, lines 56-65);

a track curve; a track grade;

a bridge;

a platform;

a tunnel;

an over-head power transmission

Regarding claim 11, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose a method of simulating on a computer an actual track route, the method comprised of the steps of:

specifying a track event along an actual track route to the computer (col. 27, lines 46-56; col. 31, lines 21-42);

specifying the actual location of the track event (col. 31, lines 36-42) ;

reading a track event model database by the computer to obtain there from, a software model of the track event by which the track event can be simulated on the computer (col. 31, lines 32-65); and

the computer generating a simulation of the track event on a display device, using the software model of the track event (col. 31, lines 32-67);

the simulation of the track event including a simulation of the actual terrain proximate to the track event (col. 31, lines 32-67; col. 33, lines 42-67).

Regarding claim 12, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 11 further including the step of: storing the software model of the track event in a simulation file.

Regarding claim 13, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 11 further including the steps of:

the computer obtaining surface coverage information for terrain proximate to the track even (cols. 31, 33);

the computer obtaining a software model for terrain proximate to the track event; and the computer generating a simulation of the surface coverage proximate the track event (cols. 31, 33).

Regarding claim 14, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 11 wherein said actual location includes the latitude and longitude (GPS, col. 32) of the track event.

Regarding claim 15, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 11 wherein the proximate terrain information includes the elevation (topology, cols. 31, 33) of the location of the first track event.

Regarding claim 16, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 11 wherein said proximate terrain information includes climatic (weather, wind; cols. 6, lines 65-67; col. 31) information for the location of said first track event.

Regarding claim 17, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 1 wherein the track event includes at least one of:

a section of straight track;

a track switch;

a train signal;

a track crossing;

a track curve;

a track grade;

a bridge;

a platform;

a tunnel;

an over-head power transmission.

Regarding claim 18, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose a method of simulating in a computer, the operation of a train along a track route comprised of the steps of:

identifying the starting and ending points of an actual track route to be simulated (cols. 6, 31, 33);

specifying to the computer, the location and the identity of a track event between the starting and ending points of the track route (cols. 6, 31, 33);

reading a track event database by the computer to obtain a software model of the track event by which the track event can be simulated on the computer (cols. 6, 31, 33);

said computer obtaining from a terrain database, information about the terrain surrounding the track event (cols. 6, 31, 33); and

said computer presenting on a display device that is coupled to said computer, a simulation of the track event, using the software model of the track event and the terrain information (cols. 6, 31, 33).

Regarding claim 19, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 18 further including the steps of:

inputting to the computer, parameters of a train to traverse said track route (cols. 6, 31, 33); and

said computer presenting on a display device, a simulation of the train encountering the track event (cols. 3, 31, 33).

Regarding claim 20, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 18 further comprised of the step of:

simulating the train's response to the terrain surrounding said track event (cols. 31. 33).

Regarding claim 21, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 19 further including the step of:

the computer reading a simulation of the surface coverage of terrain proximate to the first track event (cols. 6, 31, 33).

Regarding claim 22, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 18 wherein the information input to said computer from said first database includes information from a U.S. Geological Survey database (col. 29, lines 30-41).

Regarding claim 23, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 18 wherein said actual location includes the latitude and longitude coordinates (GPS, col. 32) of track events.

Regarding claim 24, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of claim 18 wherein said first track event includes at least one of:

a section of straight track;

a track switch;

a train signal;

a track curve;

a track grade;

a bridge;

a platform;

a tunnel;

an over-head power transmission.

Regarding claim 25, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose a method of simulating on a computer, the operation of a train along an 10 actual track route comprised of the steps of:

inputting to the computer, the latitude and longitude coordinates (GPS, col. 32) and the identity of a track event along the actual track route (cols. 6, 31, 33);

said computer obtaining from a storage device a software model of the track event (cols. 6, 31, 33);

storing the software model of the track event in a simulation file (cols. 31, 33);

said computer executing the software model of the track event from the simulation file (cols. 31, 33); and

the computer displaying a three-dimensional simulation of the track event on a display device (note! GPS is three dimensions, cols. 31, 32).

Regarding claim 26, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of simulating on a computer, the operation of a train along an actual track route comprised of the steps of:

inputting to said computer, the location and identity of a track event along said track route (cols. 6, 31, 33);

obtaining a software simulation of the track event from a track event simulation database (cols. 31, 33);

obtaining terrain information for the location of the track event from a terrain database (cols. 31, 33);

obtaining local land coverage information for the location of the track event from surface coverage database (cols. 6, 31, 33);

obtaining a software simulation of the surface coverage surrounding the track event (cols. 6, 31, 33);

storing the software simulation of the track event in a simulation file (col. 31, 33);

storing the software simulation of the surface coverage in the simulation file (cols. 31, 33);

displaying on a display device, a simulation of the track event Using the software simulation of the track event stored in the simulation file (cols. 31, 33);

displaying on a display device, a simulation of the terrain around the track event using the software simulation of the surface coverage in the simulation file (cols. 31, 33).

Regarding claim 27, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose the method of simulating on a computer, the operation of a train along an actual track route comprised of the steps of:

inputting to said computer, the location and description of a plurality of track events along said track route (cols. 6, 31, 33);

obtaining from a track event model database, a software model for each track event (cols. 6, 31, 33);

storing a software model for each track event along the track route in a simulation file (cols. 6, 31, 33);

displaying on a display device, the simulations of the track events along the track route using the software models of track events stored in the simulation file (cols. 6, 31, 33).

Regarding claim 28, Matheson et al (abstract, figs. 2-11; col. 31, lines 32-65; col. 27, lines 45-67; col. 28, lines 10-24) disclose a method of simulating on a computer, the operation of a train along an actual track route comprised of the steps of:

inputting to said computer, the location and description of a plurality of track events along said track route (cols. 6, 31, 33);

obtaining from a track event model database, a software model for each track event (cols. 6, 31, 33);

obtaining from a terrain database, terrain information for each track event along the track route (cols. 6, 31, 33);

storing a software model for each track event along the track route in a simulation file (cols. 31, 33);

storing the terrain information for each track event in the simulation file (cols. 31, 33);

displaying on a display device, the simulations of the track events along the track route using the software models of track events stored in the simulation file and using the terrain information stored in the simulation file (cols. 31, 33, 34).

Communication

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 571-272-6984. The examiner can normally be reached on Mon-Thurs: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ronnie Mancho
Examiner
Art Unit 3663

7/22/2007

JACK KEITH
SUPERVISORY PATENT EXAMINER